

Remarks/Arguments

In response to the Office Action mailed April 19, 2004, applicants request reconsideration. In the Office Action, the previous final rejection of claims 1-17 was withdrawn. However, claims 1-17 have been rejected under new grounds for rejection. No amendments have been made in this Response. Claims 1-17 remain pending in this application.

Claim Rejections Under 35 U.S.C. §102

Claims 1-17 were rejected under 35 U.S.C. §102(b) as being anticipated by Miller et al. (U.S. Patent No. 5,727,002). The examiner states that Miller teaches a firewall for transferring message packets from an external network to a local area network, at least one of the message packets including a time to live field including a time to live value, the firewall including a message receiver, a message processor configured to process the at least one message packet to provide a time to live value selected to be related to a maximum length for message packets transferred over the local area, and a message transmitter. This rejection is traversed, as Miller does not teach every element recited in each claim, as is required for a proper rejection under 35 U.S.C. §102.

Miller teaches a method for transmitting data in which, while frames of data are being transmitted, negative acknowledgements from recipients are received by the source. The acknowledgements indicate which frames require retransmission. After all frames have been transmitted, a retransmission is performed by the source for only those frames which the acknowledgements indicate require retransmission.

Independent claim 1 recites a firewall for transferring message packets from an external network to a local area network, at least one of the message packets including a time to live field including a time to live value, the firewall comprising:

- A. a message receiver configured to receive the at least one of the message packets from the external network;
- B. a message processor configured to process the at least one message packet to provide, in the time to live field, a time to live value selected to be related to a maximum path length for message packets transferred over the local area network; and

C. a message transmitter configured to transmit the at least one message packet as processed by the message processor over the local area network.

Miller does not teach or suggest a message receiver configured to receive the at least one of the message packets from an external network. The section of Miller cited by the examiner states that the link 24 taught by Miller may be one of several different network types. As shown in Fig. 2, there is only one network involved in the Miller system. Data may be transferred from the server to the clients or between clients through the server, but the data never leaves the network. Hence, the server of Miller is not a firewall.

Furthermore, Miller does not teach or suggest a message processor configured to process the at least one message packet to provide, in the time to live field, a time to live value selected to be related to a maximum path length for message packets transferred over the local area network. Miller never even mentions processing message packets, let alone manipulating the time to live value of a packet. The smallest piece of data that Miller is concerned with are “blocks” of frames, each block including up to thousands of frames. See col. 7, lines 37-39. Each block represents a unit that will be negatively acknowledged by every client participating in a transfer when a client determines that a block has been sent by the server (col. 7, lines 42-46). If any portion of a file is not received by a client, it is resent by the server in subsequent passes (col. 8, lines 7-10). One parameter that is configurable is a maximum time to complete multiple passes of the transfer (col. 8, lines 15-16). Another configurable parameter taught by Miller is the number of passes that the server will undergo in transmitting a file (col. 2, lines 58-60).

Clearly then, Miller does not process message packets to provide a time to live value selected to be related to a maximum path length for message packets transferred over the local area network. This is because, first, Miller doesn’t process message packets; second, Miller’s packets do not include a time to live value; and third, Miller’s configurable parameters are not related to a maximum path length. None of the constraints implemented by Miller have anything to do with a maximum path length for message packets transferred over the local area network. The only constraints on the transmission of packets taught by Miller are the maximum time that an entire transmission can take and a maximum number of transmission passes.

The first citation to Miller by the examiner (col. 6, lines 20-52) discusses how the server informs the clients of when a transmission is about to occur, but does not discuss the actual transfer itself. The second citation to Miller by the examiner (col. 8, lines 15-31) discusses the maximum time of transmission parameter for an entire transfer, what happens when a client receives the entire transfer and what happens when a client does not receive the entire transfer. Neither has any connection or relevance to the invention recited in independent claim 1.

Accordingly, claim 1 is allowable over Miller and the rejection under 35 U.S.C. §102(b) should be withdrawn.

Claims 2-6 depend from independent claim 1 and are allowable for at least the same reasons as independent claim 1.

Independent claim 7 recites a device for generating and transmitting at least one message packet over a network, the at least one message packet including a time to live field including a time to live value, the device comprising:

- A. a message generator configured to generate the at least one message packet and provide, in the time to live field, a time to live value selected to be related to a maximum path length for message packets transferred over the local area network; and
- B. a message transmitter configured to transmit the at least one message packet as generated by the message generator over the network.

As set forth above, Miller does not teach or suggest processing message packets to provide a time to live value selected to be related to a maximum path length for message packets transferred over the local area network. Accordingly, the rejection of independent claim 7 under 35 U.S.C. §102(b) is improper and should be withdrawn.

Independent claim 8 recites a method of transferring message packets from an external network to a local area network, at least one of the message packets including a time to live field including a time to live value, the method comprising:

- A. receiving the at least one of the message packets from the external network;
- B. processing the at least one message packet to provide, in the time to live field, a time to live value selected to be related to a maximum path length for message packets transferred over the local area network; and

C. transmitting the at least one message packet as processed by the message processor over the local area network.

As set forth above, Miller does not teach or suggest receiving the at least one of the message packets from an external network and Miller does not teach or suggest processing message packets to provide a time to live value selected to be related to a maximum path length for message packets transferred over the local area network. Accordingly, the rejection of independent claim 8 under 35 U.S.C. §102(b) is improper and should be withdrawn.

Claims 9-13 depend from independent claim 8 and are allowable for at least the same reasons as independent claim 8.

Independent claim 14 recites a method of generating and transmitting at least one message packet over network, the at least one message packet including a time to live field including a time to live value, the device comprising:

- A. generating the at least one message packet and provide, in the time to live field, a time to live value selected to be related to a maximum path length for message packets transferred over the network; and
- B. transmitting the at least one message packet as generated by the message generator over the network

As set forth above, Miller does not teach or suggest processing message packets to provide a time to live value selected to be related to a maximum path length for message packets transferred over the local area network. Accordingly, the rejection of independent claim 14 under 35 U.S.C. §102(b) is improper and should be withdrawn.

Independent claim 15 recites a computer program product for use in connection with a computer to provide a firewall for transferring message packets from an external network to a local area network, at least one of the message packets including a time to live field including a time to live value, the computer program product comprising a computer-readable medium having encoded thereon a message processor module configured to enable the computer process the at least one message packet to provide, in the time to live field, a time to live value selected to be related to a maximum path length for message packets transferred over the local area network.

As set forth above, Miller does not teach or suggest receiving the at least one of the message packets from an external network and Miller does not teach or suggest processing message packets to provide a time to live value selected to be related to a maximum path length for message packets transferred over the local area network. Accordingly, the rejection of independent claim 15 under 35 U.S.C. §102(b) is improper and should be withdrawn.

Claim 16 depends from independent claim 15 and is allowable for at least the same reasons as independent claim 15.

Independent claim 17 recites a computer program product for use in connection with a computer to provide a device for generating and transmitting at least one message packet over network, the at least one of the message packet including a time to live field including a time to live value, the computer program product comprising a computer-readable medium having encoded thereon a message generator configured to generate the at least one message packet and provide, in the time to live field, a time to live value selected to be related to a maximum path length for message packets transferred over the local area network.

As set forth above, Miller does not teach or suggest processing message packets to provide a time to live value selected to be related to a maximum path length for message packets transferred over the local area network. Accordingly, the rejection of independent claim 17 under 35 U.S.C. §102(b) is improper and should be withdrawn.

Claims 1-17 were rejected under 35 U.S.C. §102(b) as being anticipated by Aggerwal et al. (U.S. Patent No. 5,675,741). The examiner states that Aggerwal teaches a firewall for transferring message packets from an external network to a local area network, at least one of the message packets including a time to live field including a time to live value, the firewall including a message receiver, a message processor configured to process the at least one message packet to provide a time to live value selected to be related to a maximum length for message packets transferred over the local area, and a message transmitter. This rejection is traversed, as Aggerwal does not teach every element recited in each claim, as is required for a proper rejection under 35 U.S.C. §102.

Aggerwal teaches a method of determining a communications path between a source and a destination in an IP network. The method determines the path by sending a UDP probe packet having a destination field with a destination IP address and a TTL field with a value of one greater than the number of hops to the current router. The method involves incrementing the TTL of the probe packet to determine the next router between a querying node and a source node. In other words, the TTL of the probe packet is incremented by one each time a router is found that is not the source node or destination node. See col. 4, lines 26-42 and col. 6, lines 53-66.

Independent claim 1 recites a firewall for transferring message packets from an external network to a local area network, at least one of the message packets including a time to live field including a time to live value, the firewall comprising:

- A. a message receiver configured to receive the at least one of the message packets from the external network;
- B. a message processor configured to process the at least one message packet to provide, in the time to live field, a time to live value selected to be related to a maximum path length for message packets transferred over the local area network; and
- C. a message transmitter configured to transmit the at least one message packet as processed by the message processor over the local area network.

Aggerwal does not teach or suggest a firewall including a message receiver configured to receive a message packet having a time to live value from an external network. In fact, Aggerwal does not teach receiving message packets at all. The method disclosed in Aggerwal pertains only to determining paths or performing a “traceroute” between a source and a destination (col. 2, lines 22-25). No message packets are received from an external network.

Also, the system of Aggerwal is not a firewall, as Aggerwal does not teach or suggest transferring message packets from an external network to a local area network. The examiner has failed to provide support in Aggerwal for the proposition that his system is a firewall or that it transfers message packets between different networks.

Furthermore, Aggerwal does not teach or suggest a message processor configured to process at least one message packet to provide, in the time to live field, a time to live value selected to be related to a maximum path length for message packets transferred

over the local area network. Aggerwal only increments the TTL of a probe packet by one each time to determine the next router in a communications path. Aggerwal does not teach, suggest or even mention processing message packets. Aggerwal only teaches incrementing the TTL of a probe packet by one when determining a communications path. See col. 3, line 64-col. 4, line 2 and Fig. 2, Step 25. Accordingly, even if Aggerwal's probe packets were the same as message packets, which they are not, Aggerwal does not teach or suggest processing a message packet to provide, in the time to live field, a time to live value selected to be related to a maximum path length for message packets transferred over the local area network. Aggerwal never discusses, or is concerned with, maximum path length as it is related to the time to live value. Aggerwal only teaches incrementing the TTL by one. Again, the examiner has failed to provide support in Aggerwal for the proposition that Aggerwal teaches processing a message packet to provide, in the time to live field, a time to live value selected to be related to a maximum path length for message packets transferred over the local area network.

Accordingly, claim 1 is allowable over Aggerwal and the rejection under 35 U.S.C. §102(b) should be withdrawn.

Claims 2-6 depend from independent claim 1 and are allowable for at least the same reasons as independent claim 1.

Independent claim 7 recites a device for generating and transmitting at least one message packet over a network, the at least one message packet including a time to live field including a time to live value, the device comprising:

- A. a message generator configured to generate the at least one message packet and provide, in the time to live field, a time to live value selected to be related to a maximum path length for message packets transferred over the local area network; and
- B. a message transmitter configured to transmit the at least one message packet as generated by the message generator over the network.

As set forth above, Aggerwal does not teach or suggest processing message packets to provide a time to live value selected to be related to a maximum path length for message packets transferred over the local area network. Accordingly, the rejection of independent claim 7 under 35 U.S.C. §102(b) is improper and should be withdrawn.

Independent claim 8 recites a method of transferring message packets from an external network to a local area network, at least one of the message packets including a time to live field including a time to live value, the method comprising:

- A. receiving the at least one of the message packets from the external network;
- B. processing the at least one message packet to provide, in the time to live field, a time to live value selected to be related to a maximum path length for message packets transferred over the local area network; and
- C. transmitting the at least one message packet as processed by the message processor over the local area network.

As set forth above, Aggerwal does not teach or suggest receiving the at least one of the message packets from an external network and Aggerwal does not teach or suggest processing message packets to provide a time to live value selected to be related to a maximum path length for message packets transferred over the local area network. Accordingly, the rejection of independent claim 8 under 35 U.S.C. §102(b) is improper and should be withdrawn.

Claims 9-13 depend from independent claim 8 and are allowable for at least the same reasons as independent claim 8.

Independent claim 14 recites a method of generating and transmitting at least one message packet over network, the at least one message packet including a time to live field including a time to live value, the device comprising:

- A. generating the at least one message packet and provide, in the time to live field, a time to live value selected to be related to a maximum path length for message packets transferred over the network; and
- B. transmitting the at least one message packet as generated by the message generator over the network

As set forth above, Aggerwal does not teach or suggest processing message packets to provide a time to live value selected to be related to a maximum path length for message packets transferred over the local area network. Accordingly, the rejection of independent claim 14 under 35 U.S.C. §102(b) is improper and should be withdrawn.

Independent claim 15 recites a computer program product for use in connection with a computer to provide a firewall for transferring message packets from an external network to a local area network, at least one of the message packets including a time to live field including a time to live value, the computer program product comprising a computer-readable medium having encoded thereon a message processor module configured to enable the computer process the at least one message packet to provide, in the time to live field, a time to live value selected to be related to a maximum path length for message packets transferred over the local area network.

As set forth above, Aggerwal does not teach or suggest receiving the at least one of the message packets from an external network and Aggerwal does not teach or suggest processing message packets to provide a time to live value selected to be related to a maximum path length for message packets transferred over the local area network. Accordingly, the rejection of independent claim 15 under 35 U.S.C. §102(b) is improper and should be withdrawn.

Claim 16 depends from independent claim 15 and is allowable for at least the same reasons as independent claim 15.

Independent claim 17 recites a computer program product for use in connection with a computer to provide a device for generating and transmitting at least one message packet over network, the at least one of the message packet including a time to live field including a time to live value, the computer program product comprising a computer-readable medium having encoded thereon a message generator configured to generate the at least one message packet and provide, in the time to live field, a time to live value selected to be related to a maximum path length for message packets transferred over the local area network.

As set forth above, Aggerwal does not teach or suggest processing message packets to provide a time to live value selected to be related to a maximum path length for message packets transferred over the local area network. Accordingly, the rejection of independent claim 17 under 35 U.S.C. §102(b) is improper and should be withdrawn.

Based on the foregoing amendments and remarks, applicant asserts that pending claims 1-17 are allowable over the prior art of record and respectfully requests that a timely Notice of Allowance be issued in this application.

In the event the Examiner deems personal contact desirable in the disposition of this case, the Examiner is invited to call the undersigned attorney at 508.293.7835.

Applicants submit herewith a Request for One Month Extension of Time under 37 C.F.R. §1.136(a). Please charge any fees occasioned by this submission to Deposit Account No. 05-0889.

Respectfully submitted,

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Date

Scott A. Ouellette

Scott A. Ouellette, Esq.
Reg. No. 38,573
EMC Corporation
176 South Street
Hopkinton, MA 01748
Reg. No. 38,573
Telephone: (508) 293-7835
Facsimile: (508) 293-7189